- User Manual -

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1. Summary

1.1 Overview

It is a WiFi enabled IP Network CCTV Security Digital Video Recorder (DVR) camera, not a real lamp. This is an innovative design and being patented. The idea is very simple to use and can be used worldwide, just insert a Micro-SD card and screw-in like a bulb, turn on power, it will be auto recording. Using this device, there is no drilling holes and no cabling, just using existing bulb holder. It is no need technical background, you know how to replace a normal bulb, then you know how to install it.

Besides, you can use your mobile phones or computers remotely access it via internet, watching and hearing what is happening at there. It can be broadly used in any environments and setup by your own like home, office, factory, shopping mall, restaurant and so on.

1.2 Key Functions

Function	Description
	Provide true HD 960P resolution 1280x960 pixels.
	Provide two operation modes, AP mode that is point to point access. WiFi mode that is joining existing network and to be accessed outside via internet.
	Using H.264 compression, delivers high quality video and a superb compression ratio.
	Onvif compatible that means video can be saved to ONVIF supported NVR machines for backup large volume video files
	Using Peer-to-Peer technology, no need setting on routers and no need DDNS and no need IP address setting, just plug and play.
	Local storage using Micro-SD card, accepting 2GB-32GB, 32GB card can store 12 days video files, recommend using **CLASS 10** card.
	When there is motion detected, it will trigger alarms by email alert or push warning message to mobile phone.
	When there is motion detected, email alert can send 3 pictures to your dedicated email account

	Able to hear sound from bulb camera on mobile phones, PCs and MAC and so on.
	Built-in IR-cut, no color casting
	Provide clear image at night (in black and white)

1.3 Specifications

System	Embedded Linux OS
	Using industrial grade TI solution CPU, TIDM365
Image Sensor	1/4" CMOS progressive sensor,1.3M pixels
Video	H.264 Compression Format
	Resolution : 960P (1280*960) / (1280*720)/VGA (640*480) / QVGA(320*240)
	Frame Rate : 0 – 25 FPS
	Data Rate : 32Kbps – 2.0M Kbps
	Light intensity, contrast ratio, saturation level are adjustable
Network	Using Peer to Peer (P2P) technology, no need configuration and no DDNS
	Support two modes, AP mode and WiFi mode : AP mode – For local usage, no need internet remote access and no need to connect to wifi router WiFi mode – Connect to wifi router and to be accessed via internet
	Wi-Fi compliant with wireless standards IEEE 802.11b/g/n
	Support both WEP & WPA WPA2 encryption for wireless
	Wireless transmission distance in open area around 100 meters
Watch	On line viewing and control via iPhones、iPad、Android Smart Phones、Wins PC、Notepads、Notebooks、MAC
	Free client software for mobile phones and computers
	One software can display max. 64 bulbs
	Simple installation, just download and launch it. No configuration and no setup at all.
Storage	Local storage, support Micro-SD card, 2GB-32GB (class10 card recommended)

	32GB card can store 12days video by using VGA(640*480) format
	Support looping and motion detection recording
	Recorded files can be remotely downloaded to computer or mobile phone for viewing
	Support client side recording, on PC or mobile phones
Alarm	Motion detection triggering email alert
	Motion detection triggering mobile phone push alert
Night Vision	Using 2pcs of 3rd generation LED ARRAY, more longer life 3-5yrs and more brighter
	Night vision distance about 20 meters
LEN	3.6mm, 90 degree viewing angle, 3.0M pixels
Min. Illumination	0.1 Lux (IR Off), 0 Lux (IR ON)
IR-CUT	Built in IR-CUT, no color cast in day, clearer images at night
Audio	ADPCM Format
	Built-in microphone
	Through Client software able to hear sound
Motion Detection	Motion detection distance 5 meters
Adapters	E27/E26/B22 optional
Voltage	Worldwide usage, AC 100-240V
Power Consumpt.	< 5W
Operation Temp.	-20~50℃
Weight	Gross: 300g
Packaging size	85*85*175mm (L*W*H)

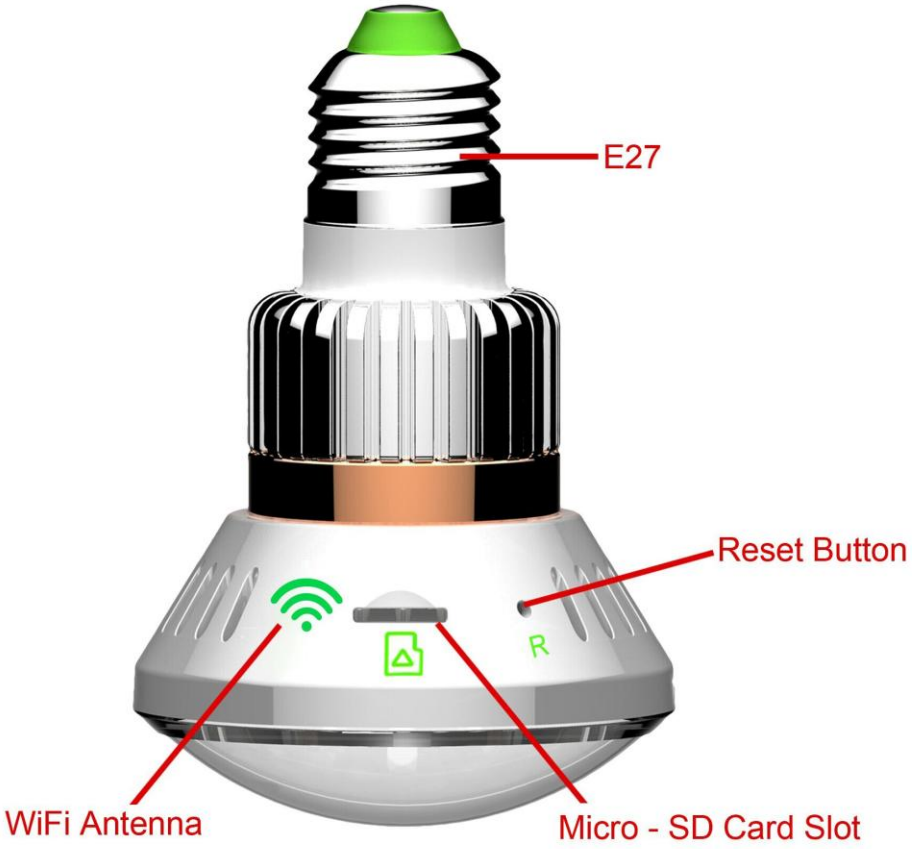
1.4 Package Content

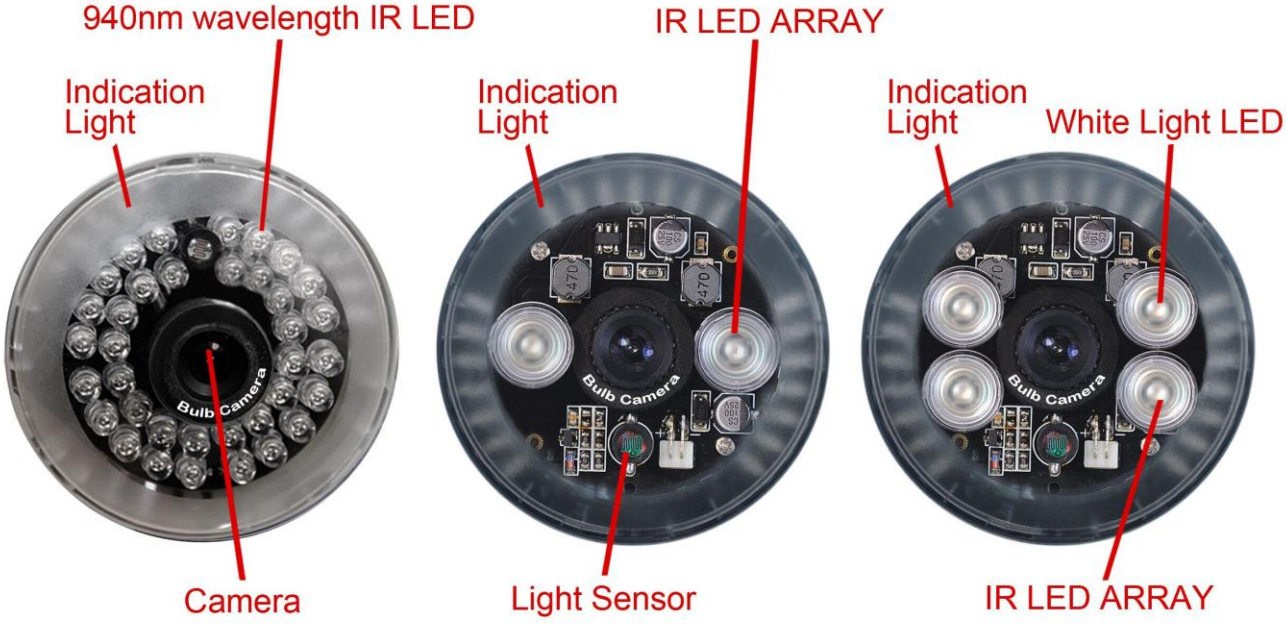
1 x Bulb WiFi IP Network DVR Camera (*not include memory card*)
1 x CD (*user manuals inside*)
1 x Micro-SD card reader (*plug to computer for viewing videos if needed*)
1 x Reset Pin (*manually reset the camera*)
1 x Reset Remote Control (optional, *for bc-881m and bc-883 only*)

1.5 Attention

1. Before replacing the camera, please ensure the power is OFF and the circuit voltage is within the operation range (100 – 250V AC)
2. Please hold the plastic enclosure of the camera during installation or removal to ensure safety
3. If camera running for more than 2hrs with IR light On, the plastic case will be little bit warm that is normal, and the metal part will be warm too. But when IR light off, it will cool down quickly.

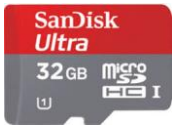
2. Product Layout



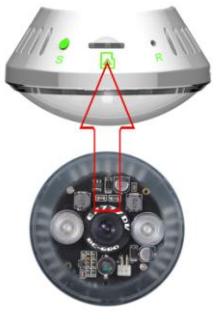


BC-881H BC-880 BC-883

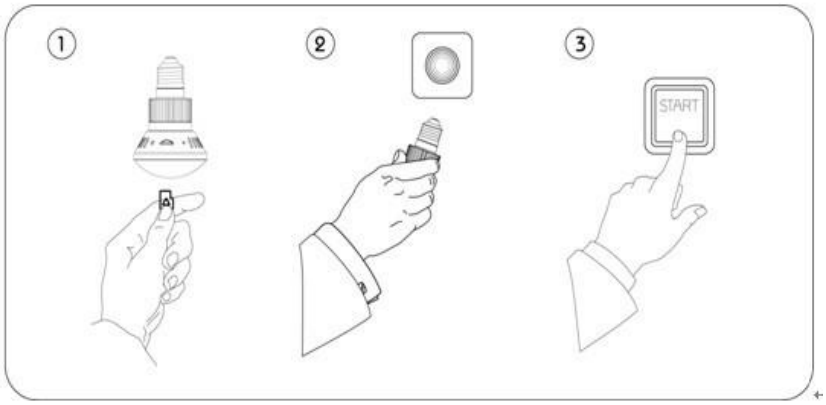
Buttons

Button	Function	Picture
Micro-SD card slot	For inserting Micro-SD card, accepting 2GB-32GB, recommend CLASS 10 card	
Reset	Using reset pin, press and hold for 10 seconds, device will be reset to factory default mode(AP mode) Or Press reset button on remote control once and hearing 10 beeps, device will be reset to factory default mode (AP mode)	

3. How to install



Camera upward direction is at same direction as Micro-SD slot



1. Insert a Micro SD card (2GB-32GB, format it for first time usage) into the camera card-slot
   1.1. Before screw-in the camera, ensure the socket power is off and the voltage is within the operation range (AC 100 – 250V)
2. Screw-in the camera into a bulb holder like a bulb
3. Turn on power

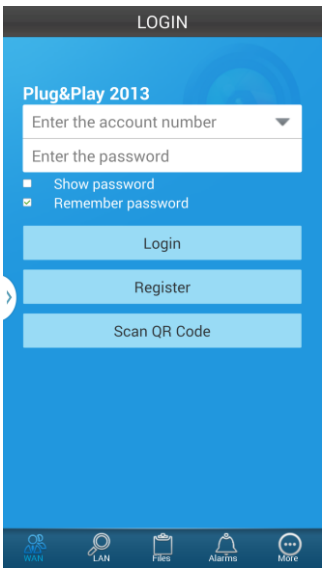
4. Client Software Installation

Client APP for mobile phones are available on Apple Store and Google Play for download, the APP name is called "BulbCam", or you can follow below to download from our website (www.bulbcam.net)

4.1 Andriod Smart Phones

Scan to install

Or download at http://www.bulbcam.net/download/bulbcam.apk

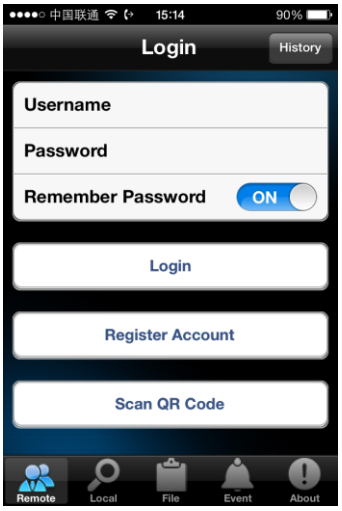


Software name : BulbCam

4.2 iPhone /iPad

Scan to install

Or search "BulbCam" in APP Store and install it



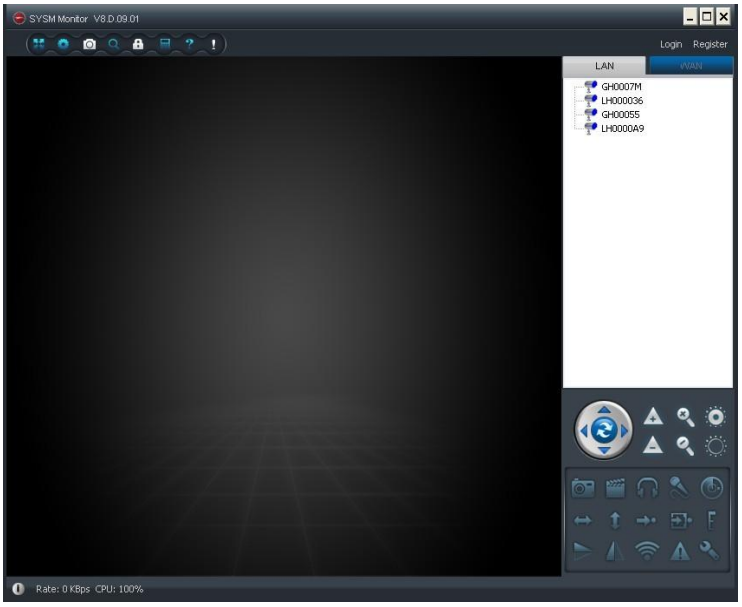
Software name : BulbCam

4.3 Win PC

Download it from http://www.bulbcam.net/download/bulbcam.zip

Unzip the file

Click “bulb cam.exe” to install it



Software name : BulbCam

4.4 MAC

Software name : BulbCam

Download it from http://www.bulbcam.net/download/bulbcam.dmg

Install it

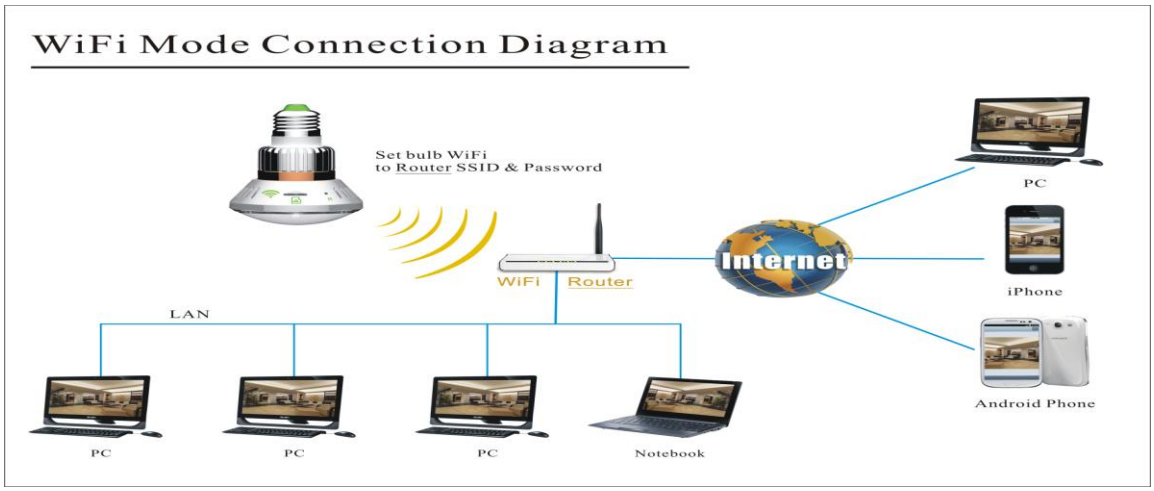
5. Operation Mode

This device supports two operation modes.

Mode Name	Function
AP Mode (Point-to-Point)	It is the default mode, Mobile phones or PCs can directly connect with bulb camera using WiFi feature provided by bulb camera itself, so also called point-to-point connection. *In any stage, pressing RESET button, will go back to this mode.*
WiFi Mode	Using WiFi feature provided by exiting WiFi router and that has been connected to internet, setting bulb camera connect to the router. Then the bulb camera can be accessed via internet. Each bulb has a device ID, that is used to identify its identity in internet world.

Remark :

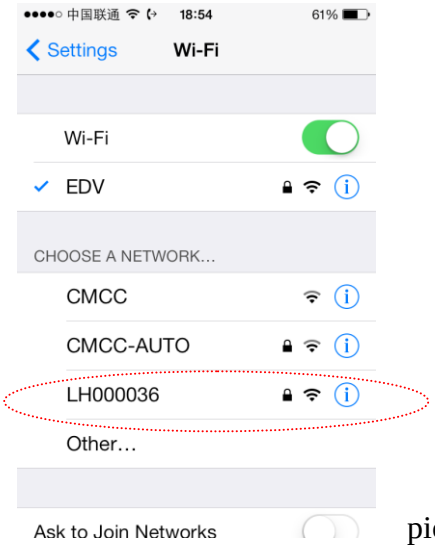
1. *Computer with WiFi feature can also be used to set AP mode or WiFi mode in case your mobile phones failure. If no Computer wifi device, you can be found in our accessory list.*
2. *Sample pictures are from iPhone, but all functions are the same on other devices.*
3. *Different connection Diagrams are demonstrated separately.*



5.1 AP Mode (point-to-point)

It is known as a point-to-point connection and the bulb camera is in this mode by default. Each bulb camera has a unique ID (like LH00xxxx), we call this as a device ID and its identity when being connected to internet world, a password is required when making connection to it.

Search Bulb camera in mobile phones setting WiFi section



picture from iPhone

Select SSID same as device ID, and key in Password

If can not find it, reset the bulb camera by reset pin or reset button on remote

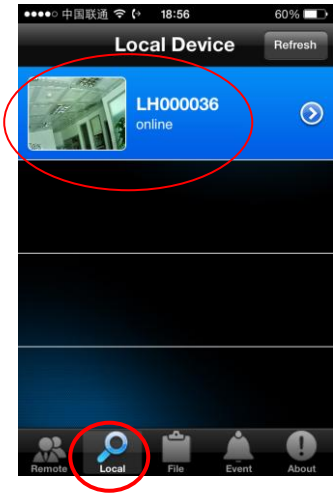
SSID : LH0000xxx

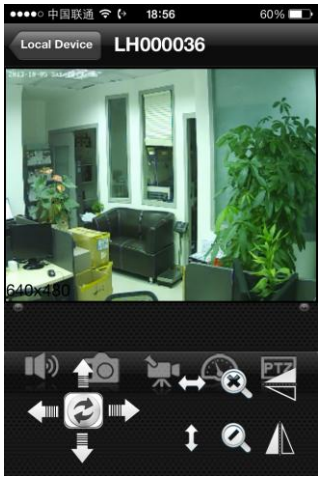
Pwd. : 88888888

(stick at back of packing box)

Launch installed bulb app in mobile phones

Tap “Local” or “LAN”, then tap device id to watch





5.2 WiFi Mode (Internet Access)

Joining existing WiFi router, let connected watch devices (Andriod smartphone/ iphone/ ipad/ PC/MAC/Notepad..) over WAN/LAN network to access it. If the existing WiFi router is connected to internet, then the bulb camera can be accessed worldwide. Below action is transforming from AP mode to Wifi mode.

Remark : Bulb camera's device ID (like LH00xxxx) is its identity and it is for WAN connection, also this ID is used as a login account no.

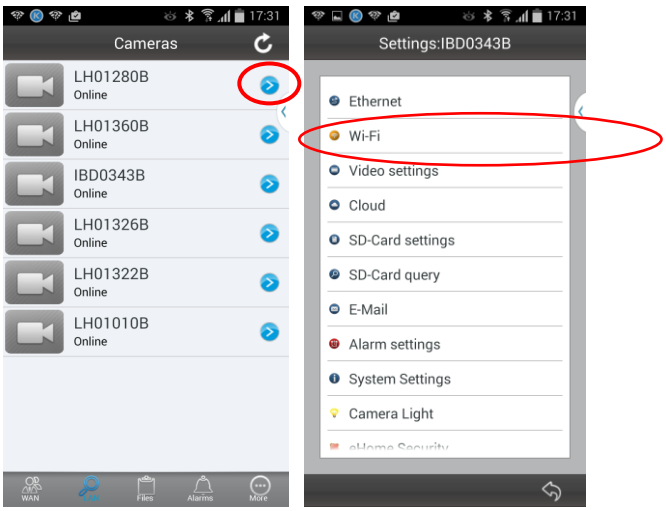
Assume AP mode is set in section 5.1

Select a bulb camera in camera list of LAN section of APP

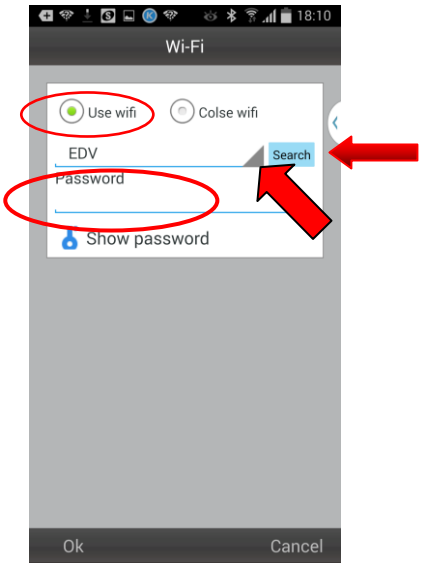
Tag "**>**" Go to "**WiFi**"

Select **existing WiFi Router** SSID by pressing "SEARCH" button and then press GREY triangle part to select. After that key in Router's WiFi password. Bulb camera will reboot automatically

Bulb camera will be connected to current router after 2 minute later



Pictures from Android Phone



Press RESET button or Using RESET pin to reset it (if wrong SSID or PWD entered, or not found after 2 mins),back to **AP mode repeat again**

5.2.1 WiFi Mode Trouble Shooting Strategy

If you could not connect the bulb camera to WiFi router even password and everything is correct. Then you have to read below instructions.

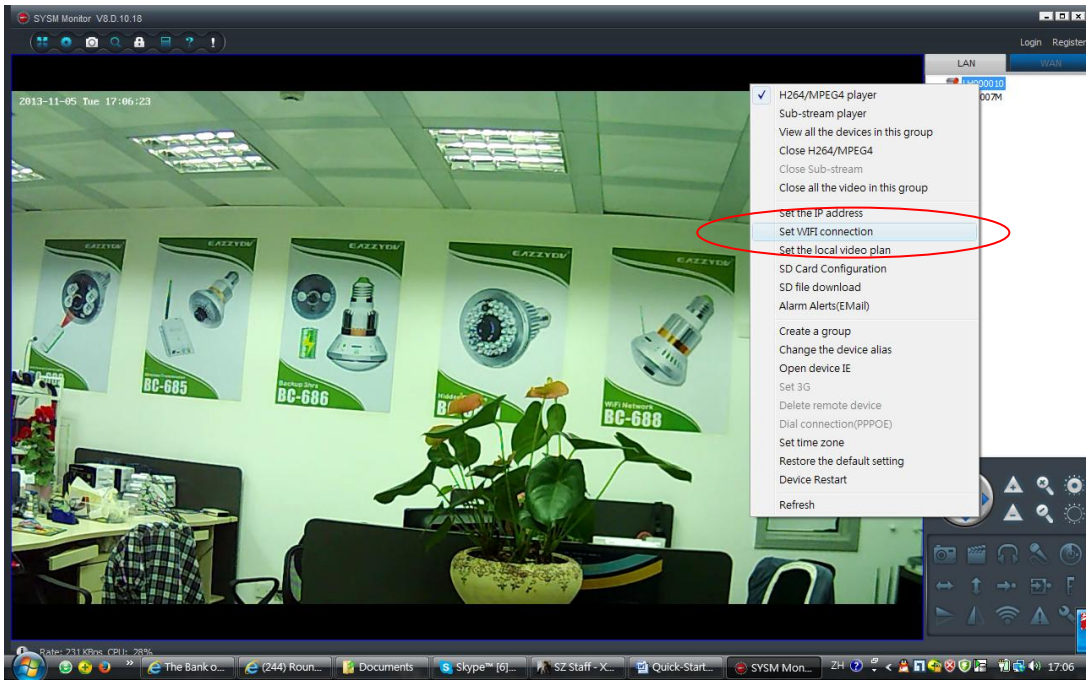
Under WiFi mode, bulb camera will be connected with router. To have better performance and being successfully connected with router, there are some key points must be aware :

1. **Router's DHCP service must be enabled. Bulb camera depends on it to get IP address.**
2. **Router's SSID, must no space in between, that means format like "my ssid" is not acceptable, only acceptable "myssid"**
3. **Router's wireless channel, we would suggest using no. "13" (some old router without channel 13, then select channel 11)**
4. **Router's security method, we would suggest using "WPA2-PSK" (AUTO is not recommended)**
5. **Router's encryption method, we would suggest using "AES" (AUTO is not recommended)**

5.3 On PC, Change to WiFi Mode

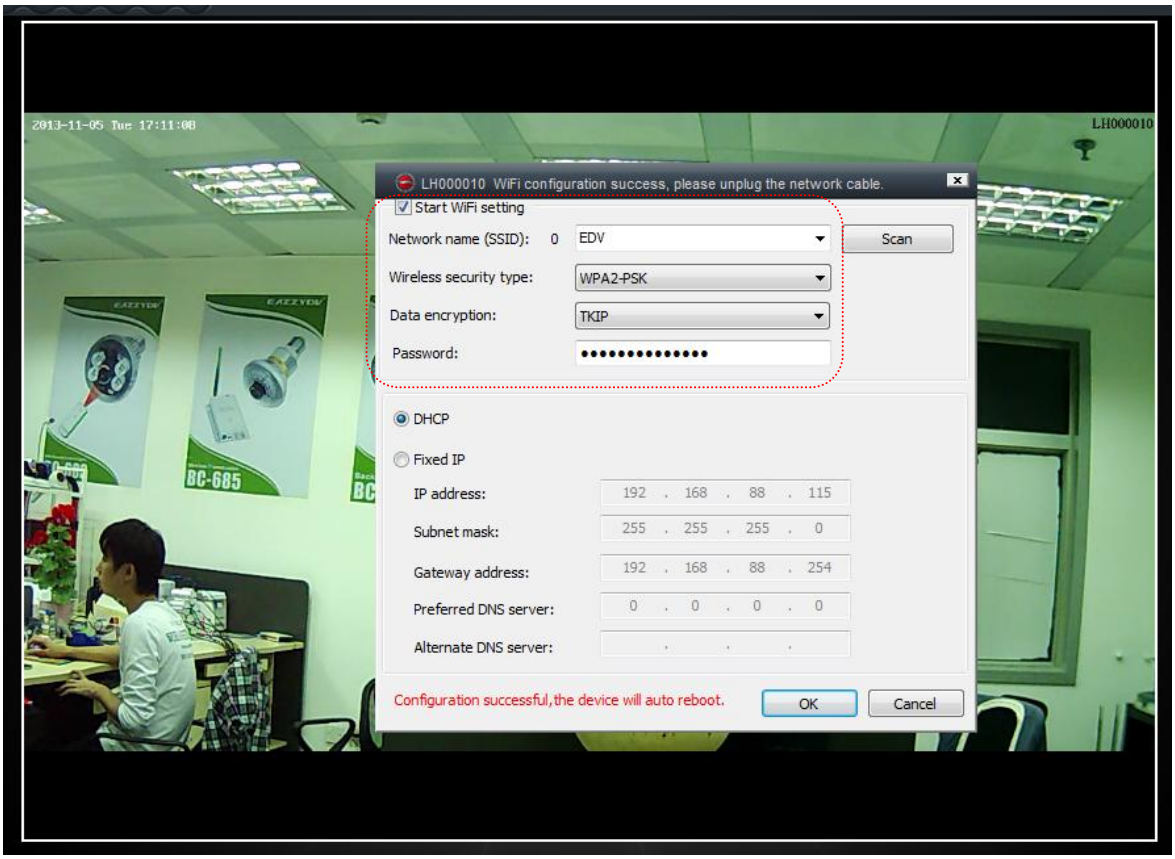
If your mobile phone is not available, you can also use computer changing WiFi setting. The steps are :

Select a bulb device ID in Local section, click right hand mouse button, select "Set WiFi Connection"



Press "**Scan**" button, then select router **SSID** from list box, select Wireless security type

"**WPA2-PSK**", select Data Encryption "**AES**", manually typing Router's WiFi **password**. After that press "OK" button, bulb camera will reboot.



6. Online watch

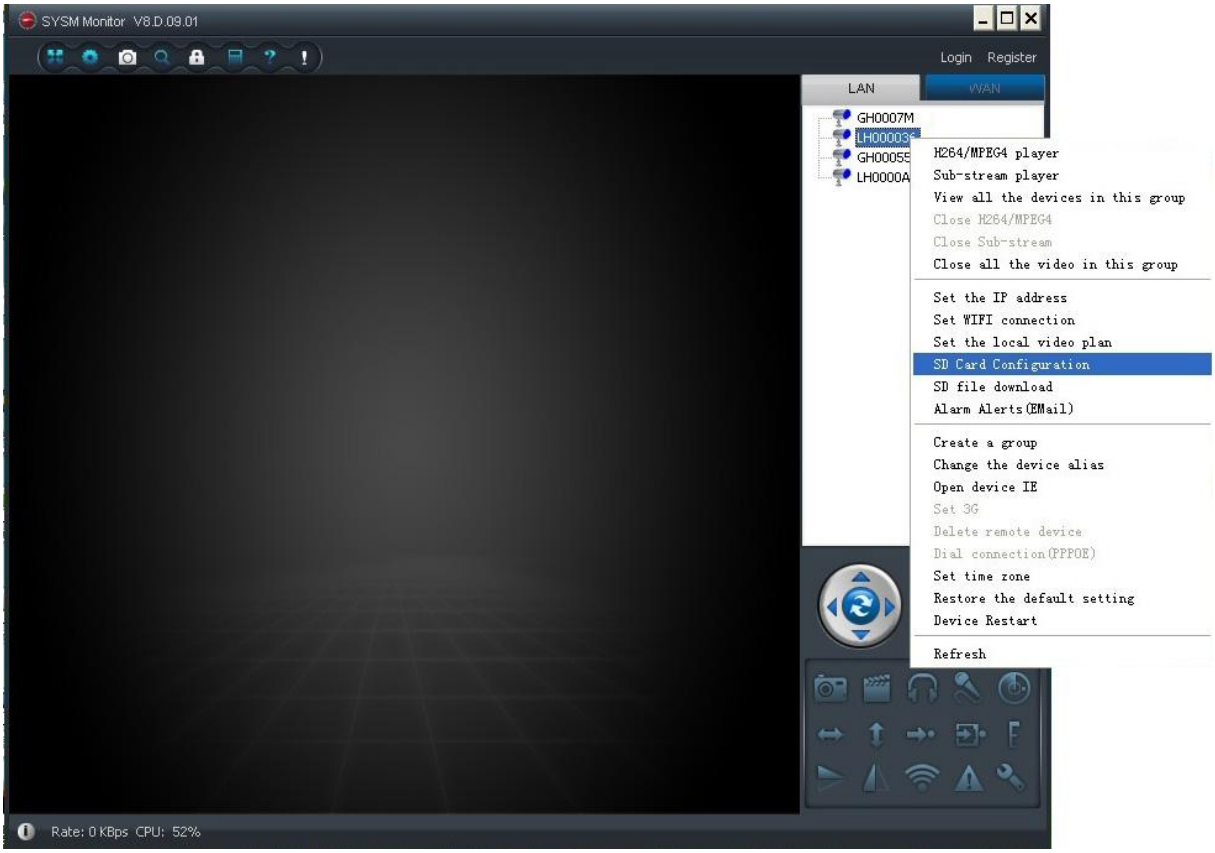
There are two viewing types, they can be selected at the first page of client software. Select which type to use, and then click/tag the device ID in list to viewing it.

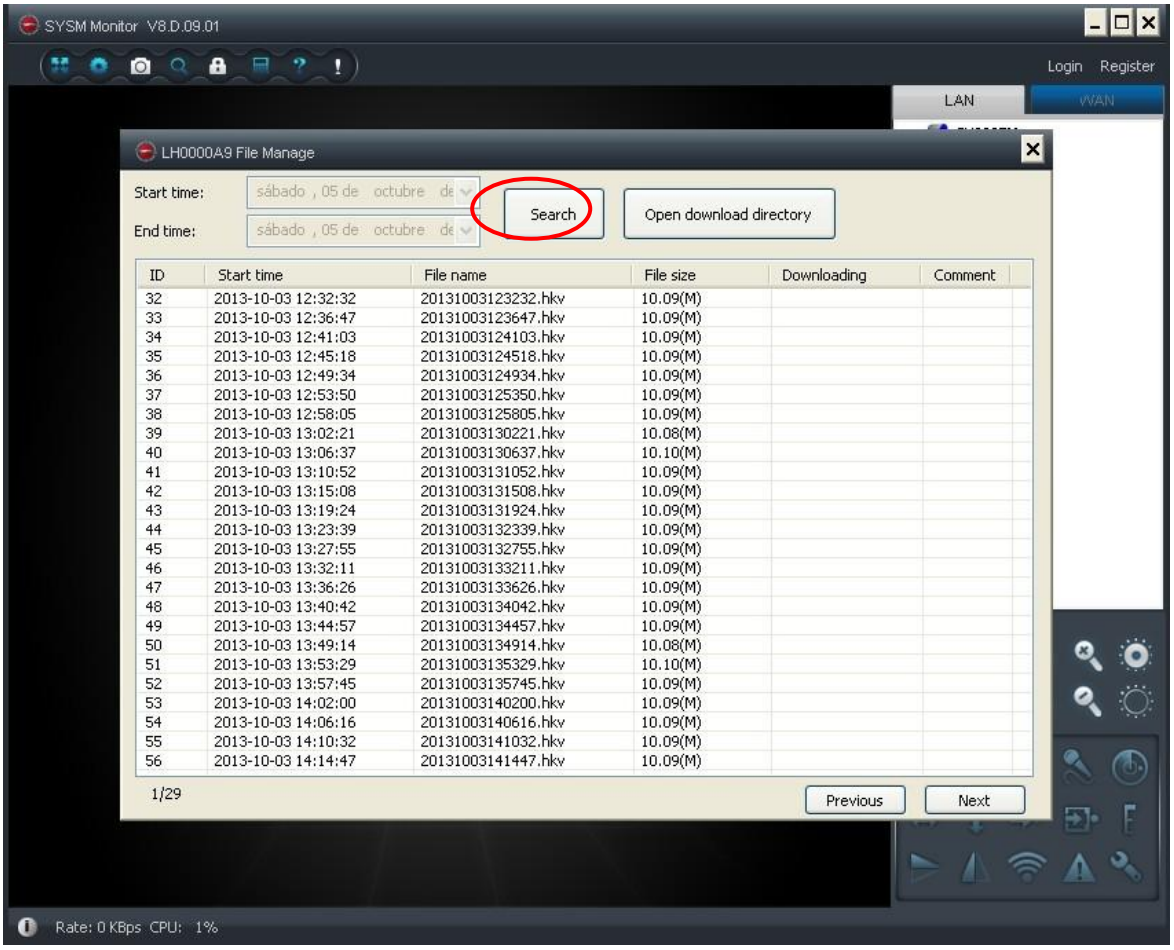
Watch Types	Description
LAN / Local PC Phone	If you are in house or office, and the bulb camera is in the same local area network or point to point network. Then you can use Local/Lan type to watch online. No need to login account, but you can use setting watching passwords to prevent other accessing it. And the speed is much faster because it is in local /LAN
WAN / Remote PC Phone	If you want to access bulb camera from outside via internet, then select WAN tab. It requires to login an account. The device ID (**LH0xxxxx**) of bulb camera is the account no. and the password is **123456**. You can create other accounts and add all bulb cameras into it as a central management account.

7. Download recorded video

If a micro-SD card has been placed inside a bulb wifi dvr camera, when it is power on, it will auto record video by itself. To preview the content of Micro-SD card, you can download recorded video files from bulb camera to your computer by using the function “SD File Download” in PC client software.

Select a bulb camera in list -> click right hand mouse button -> select “SD File Download” -> Click “Search” ->Click on a file to download -> when download done, click to preview





8. Set Motion Detection, eMail Alert

There are two alarm types, Email Alert and Push Message Alert (for Mobile phone). But these alarms are basing on Motion Detection, when a motion is detected, it will trigger these functions.

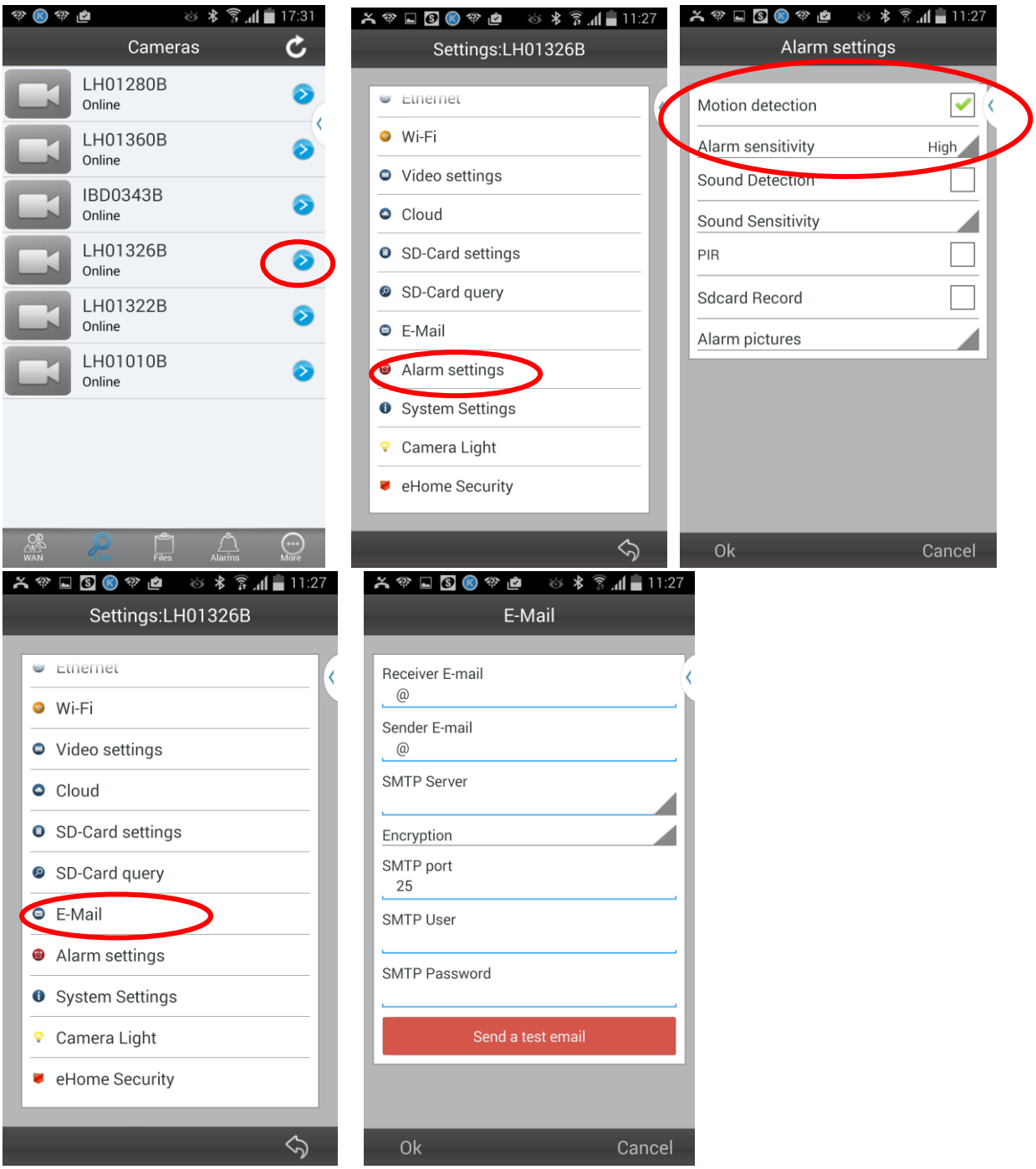
Set Motion Detection and Email Alert:

On mobile phones:

Select a bulb camera in device list of local section, tag ">" -> select "Alarm Settings" -> Set "Alarm sensitivity" to "High", tick Motion detection checkbox.

If you want Email Alert, then go to Email section, fill in email alert fields. "Reciever E-mail", "Sender E-mail"…so on, all needed.

***Here you need smtp-server and smtp port information, if you don't know that you have to ask email Service provider. But these information can be filled-in later on.

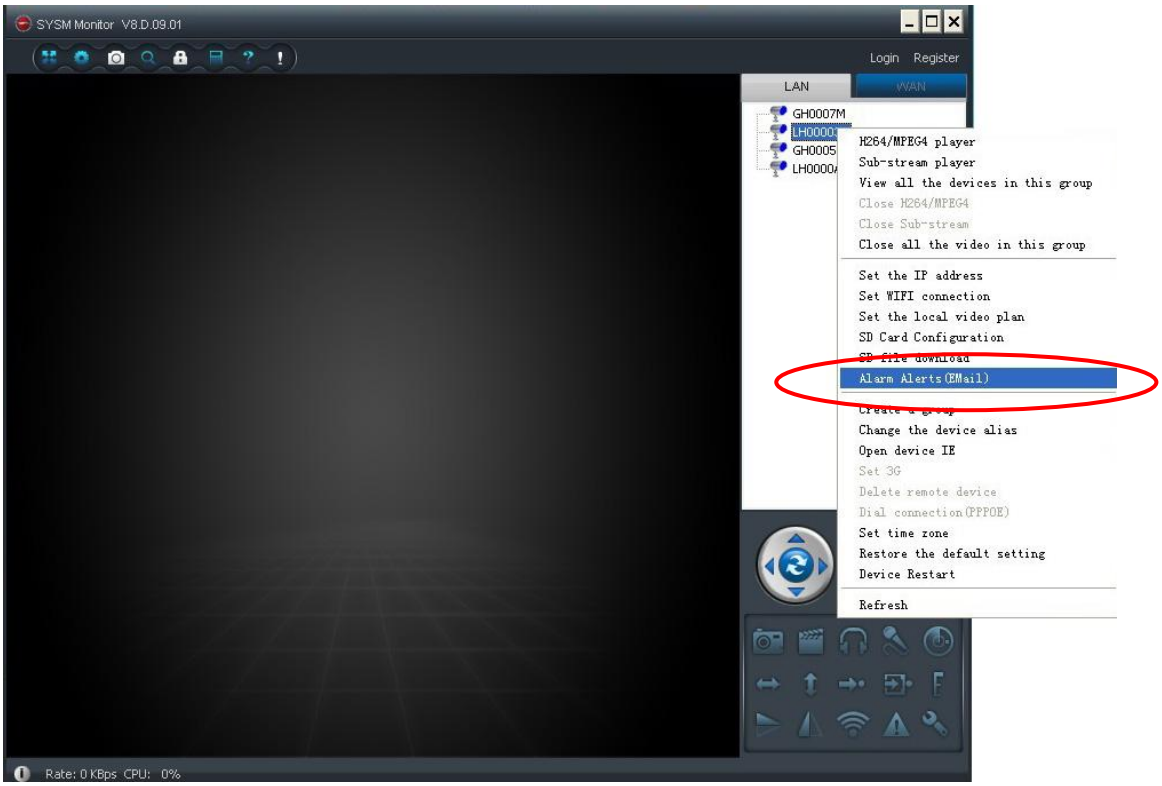


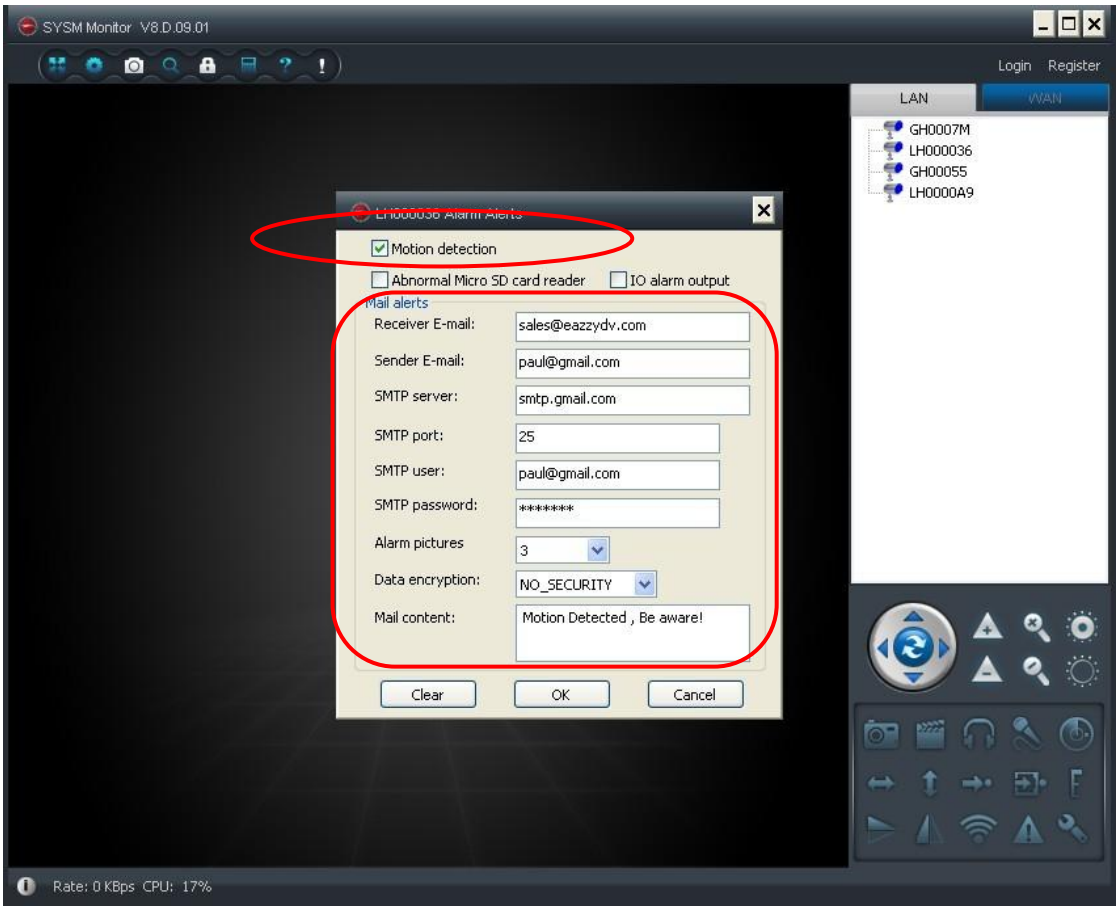
On PC

Select a bulb camera in device list of LAN section, click right hand mouse button -> select "Alarm Alerts/Email" -> Tick "Motion Detection" box

If you want Email Alert, then fill in other fields. "Reciever E-mail", "Sender E-mail"…so on, all needed.

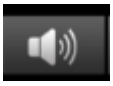
***Here you need smtp-server and smtp port information, if you don't know that you have to ask email Service provider. But these information can be filled-in later on.

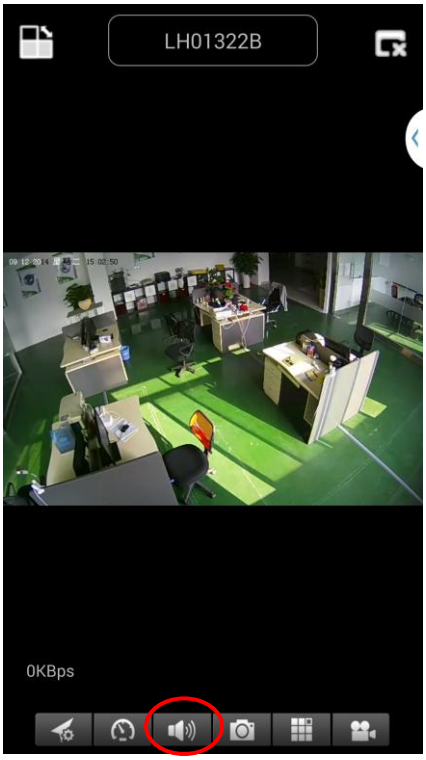

SYSM Monitor V8.D.09.01
Login
Register
LAN
WAN
GH0007M
GH0005
H264/MPEG4 player
Sub-stream player
View all the devices in this group
Close H264/MPEG4
Close Sub-stream
Close all the video in this group
Set the IP address
Set WIFI connection
Set the local video plan
SD Card Configuration
Alarm Alerts(EMail)
Change the device alias
Open device IE
Set 3G
Delete remote device
Dial connection(PPPOE)
Set time zone
Restore the default setting
Device Restart
Refresh
Rate: 0 KBps CPU: 0%

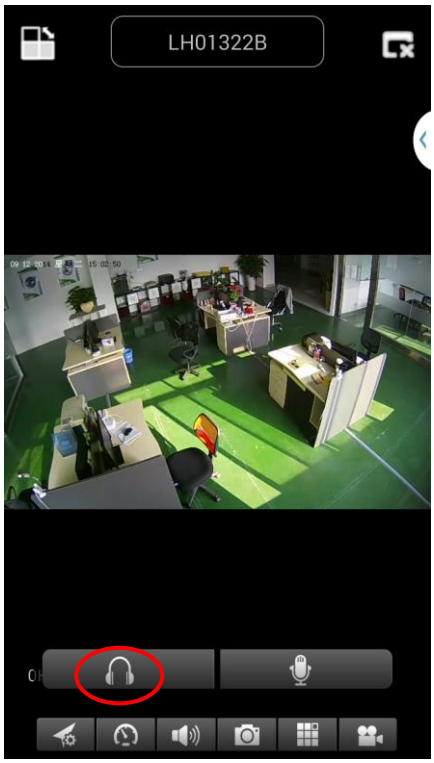

SYSM Monitor V8.D.09.01
Login
Register
LAN
WAN
GH0007M
LH000036
GH00055
LH0000A9
LH000036 Alarm Alerts
Motion detection
Abnormal Micro SD card reader
IO alarm output
Mail alerts
Receiver E-mail:
sales@eazzydv.com
Sender E-mail:
paul@gmail.com
SMTP server:
smtp.gmail.com
SMTP port:
25
SMTP user:
paul@gmail.com
SMTP password:
****
Alarm pictures
3
Data encryption:
NO_SECURITY
Mail content:
Motion Detected , Be aware!
Clear
OK
Cancel
Rate: 0 KBps CPU: 17%

9. Listening and Speaking

On Mobile phone

When in viewing mode, click  and then click the headphone logo to hear sound

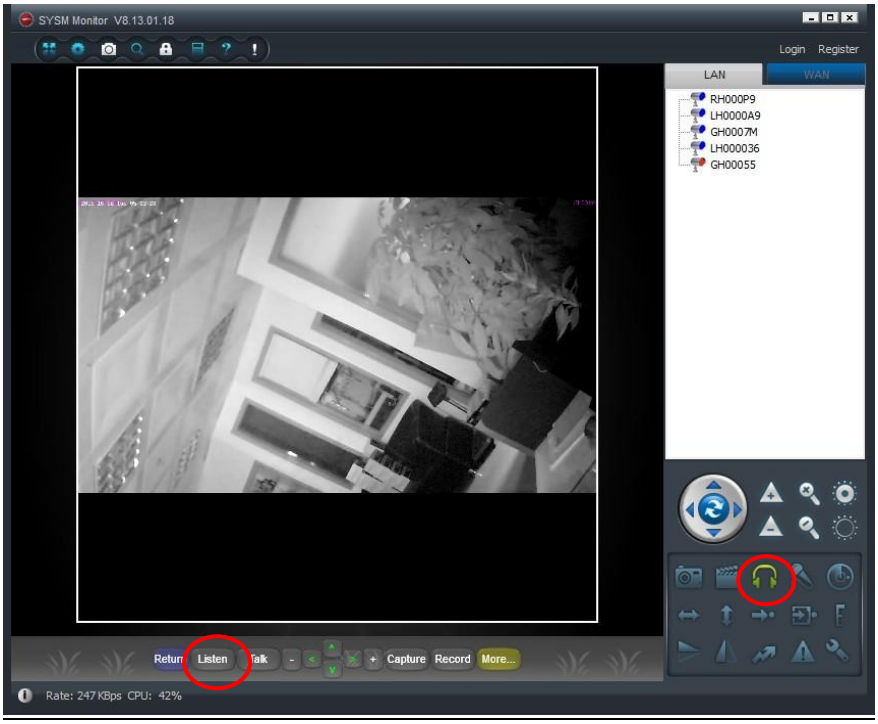




If it is connected to a speaker, then click to speak

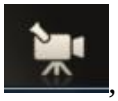
On PC

When on viewing mode, there is a headphone logo , click to hear sound, or click “Listen” button



10.Video Recording Methods

There are three methods to record videos

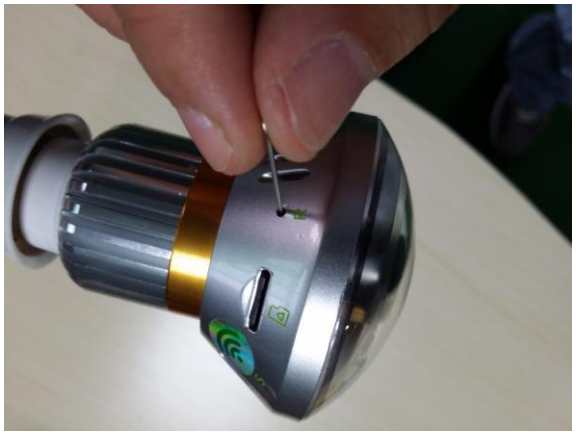
1. Built-in Micro-SD card storage device - just simply insert a card then it will auto recording
2. Recording on Mobile phone or Computer – when online watching a bulb camera on mobile phones or computers, simply press the video sign button  , it will start recording video, and the video files are stored on watching device.
3. Network Video Recorder device – NVR machine which supports ONVIF protocol, then it can connect to bulb camera recording video onto it. This suits for large video file storage application, like there are few bulb cameras and need to be centralized manage storage.

11. Reset camera

There are two methods to reset bulb camera to default (factory setting)

1. Reset pin

   Using provided reset pin, insert into the reset hole and press down around 10 seconds, then release it. Bulb camera will reboot and return all setting to factory set value.



2. Reboot button

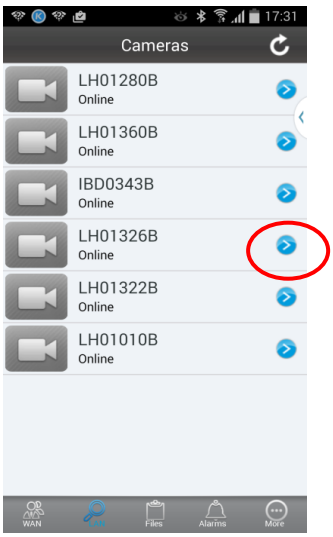
Some models come with a remote control, just press “Reboot” button on remote control, then bulb camera will reboot by itself and return all setting to factory set value.

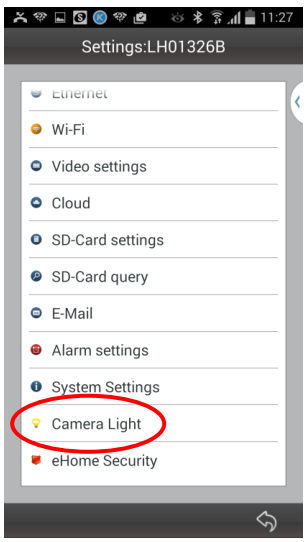
12. Light Control

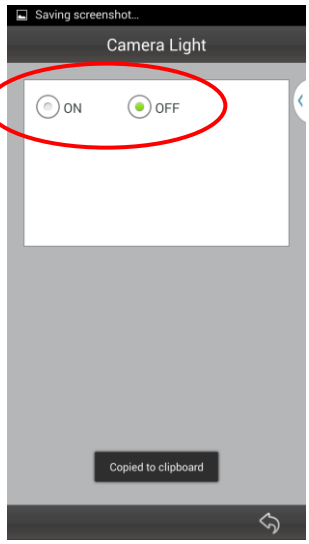
12.1 Switch On/Off light

Light switch On/Off feature only applies to some models with normal LEDs, not every model has this feature.

To switch On/Off, open APP and in LAN section, choose a camera, tab “>” -> “Camera Light” -> select “ON/OFF”



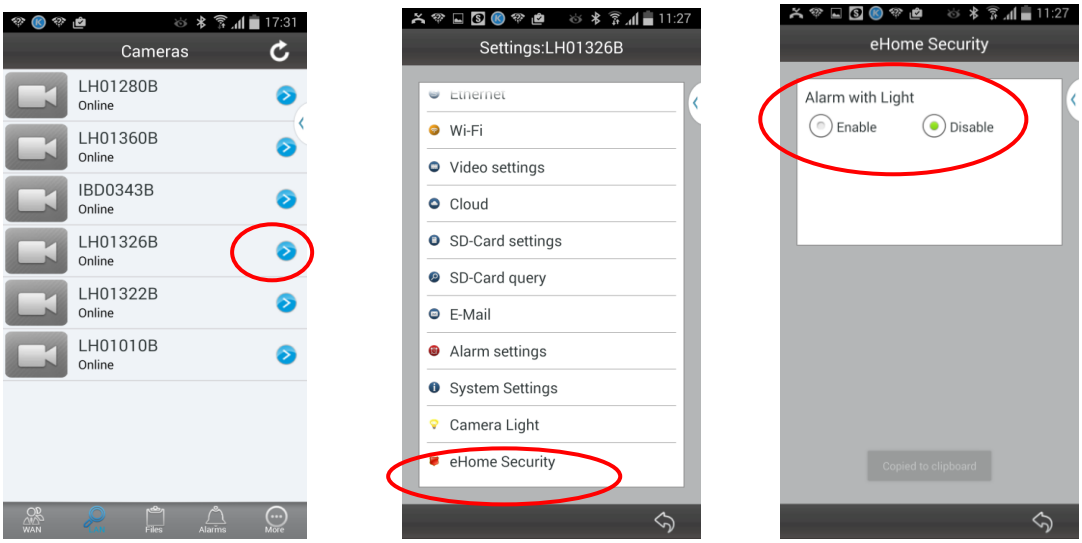




12.2 Motion Detection with light

Light can be controlled basing on motion detection. Once motion detected, the light will be ON automatically, if there is no motion, the light will be OFF.

To enable this function, Motion Detection feature must be ON first, then open APP and in LAN section, choose a camera, tab “>” -> “eHome Security” -> select “Enable / Disable”

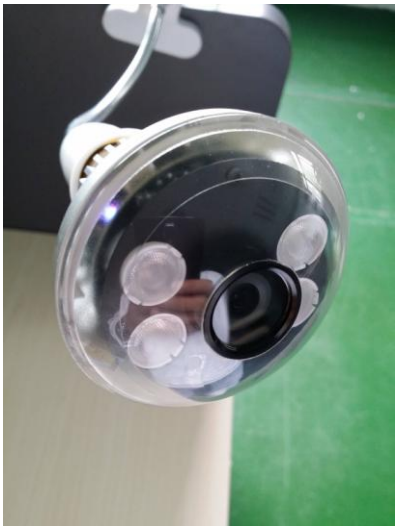


13. Indication Light Meaning

There are two states of indication light, Blue and Red

Blue means the system is in booting stage, not ready for connection.

Red means the system is ready for connection.



14. Advanced Setting for Professional

Administrator can use Internet Browser to control the back-end of bulb camera.

Each bulb camera has a local IP address, On PC software, IP address can be found in “Set IP address” function, then key in the IP address in a browser, like in IE, 192.168.88.111

If IE is the default web browser, select “Open device IE” on menu, direct go in.

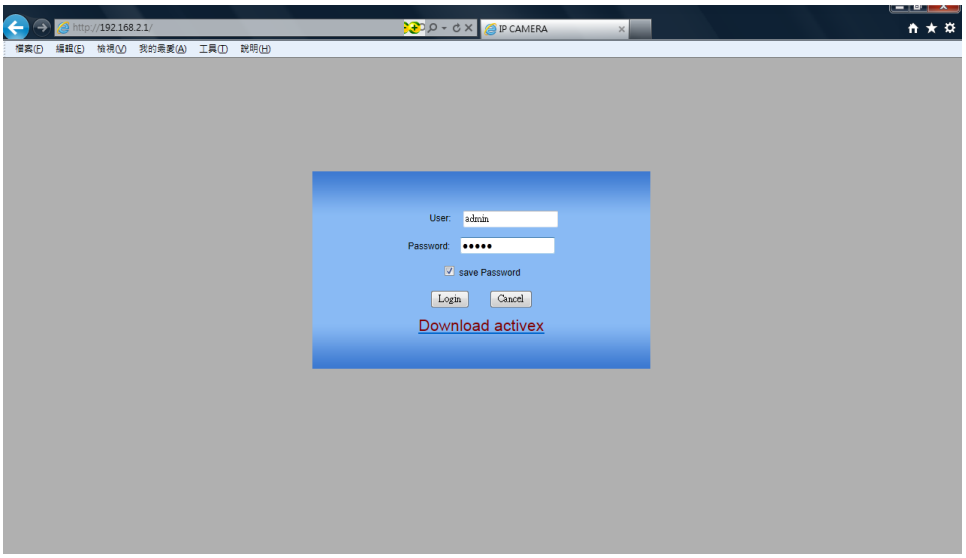
Then a prompt screen will pop up for login

Login : admin Password : admin

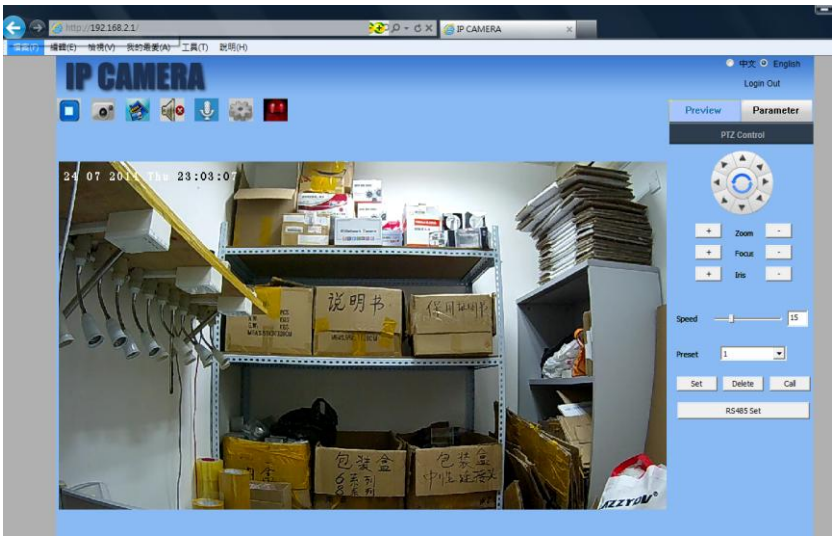
If you are first time using it, then you have to click “Download activeX” and install it before you can login.

If you have downloaded and installed but still not can not login, then go to our support website download an activeX and manually installed by administrator role, www.bulbcam.net

When login successfully, an administration screen will be shown as below.



Administrator screen on IE :

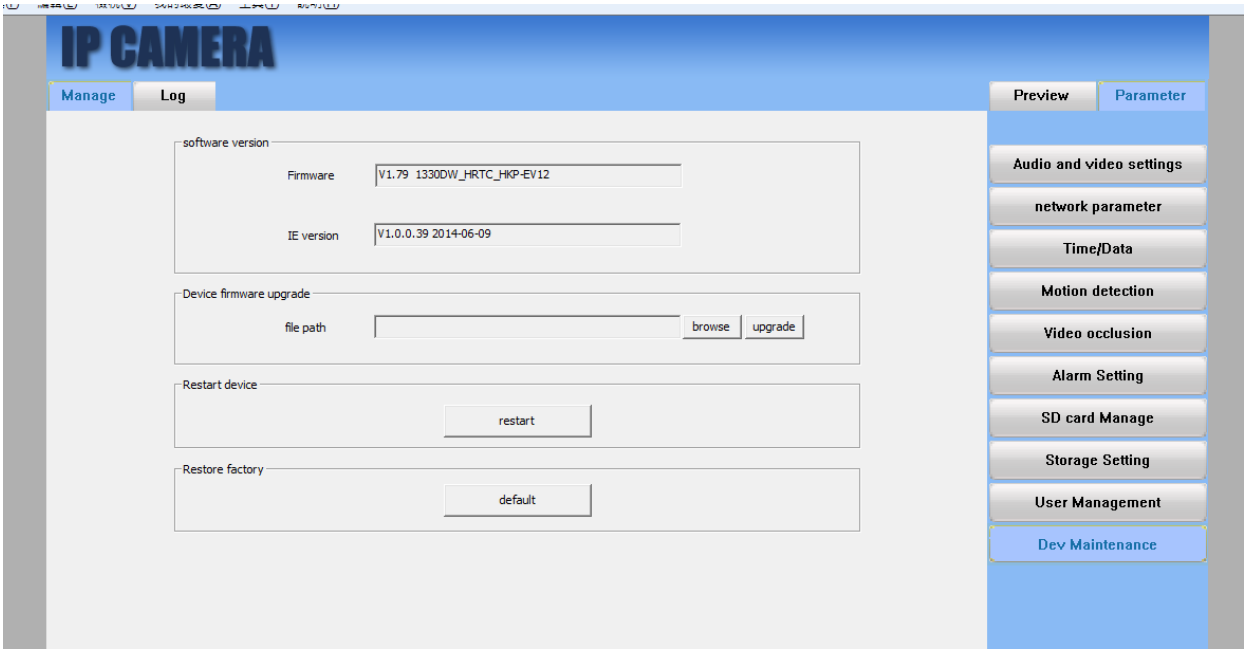


15. Advanced Setting for Professional – Update Patch

If there are new firmware released, we will update on website, www.bulbcam.net

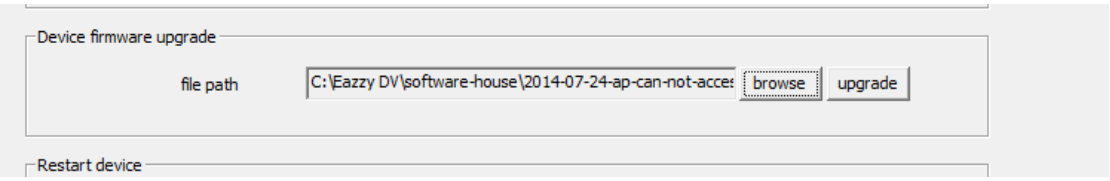
For updating patches, download from above website first, then go to back-end administration page in section 12.

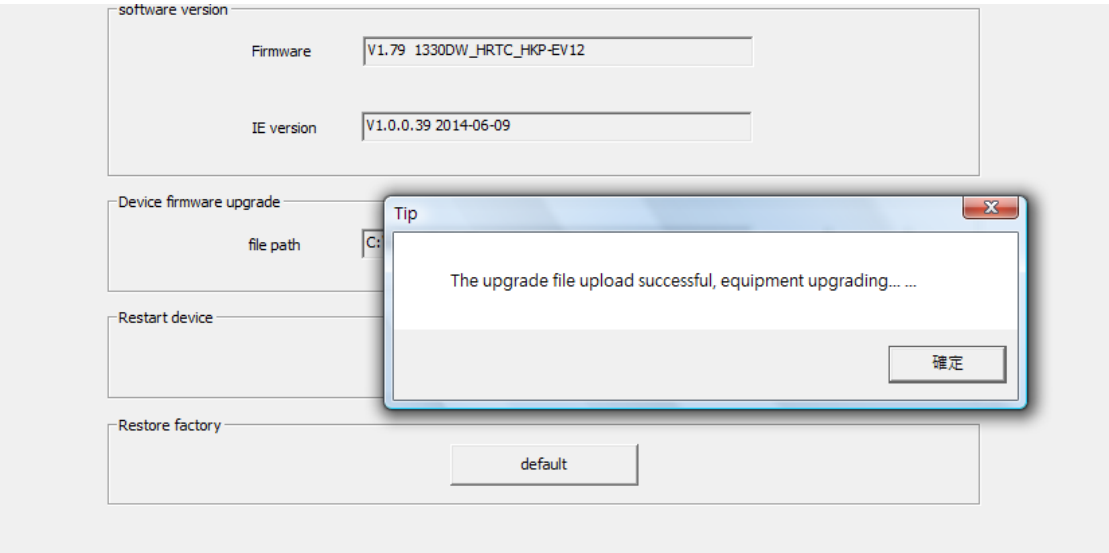
Click “Parameter->Device Maintenance”, the screen looks like below



Click “browse” button, browsing the firmware update file from your computer, then click “upgrade” button

When it is upgrading, don’t turn off power of bulb camera. When it is done, it will auto reboot.





When the reboot is done (indication light turns to RED color), Then turn off the power, wait for 10 seconds, turn on again.

16. Accessories

16.1 Extension Adapter

Item No.	Picture	Description
BC-AE16		160mm extension adapter, bending angle is around 10 °
BC-AE20		200mm extension adapter, Max. bending angle is around 90 °
BC-AE30		300mm extension adapter, max. bending angle is around 180 °
BC-AE45		450mm extension adapter, max. bending angle is around 360 °

16.2 Extension Adapter with Plug

Item No.	Picture	Description
BC-AEP30UK		300mm long extension adapter with UK plug

BC-AEPC30UK		**300mm long extension adapter with UK plug plus clip and power cable**

16.3 Bulb Converter

Item No.	Picture	Description
BC-ACB22		**Converting E27 to B22**
BC-ACGU10		**Converting E27 to GU10**
BC-ACE14		**Converting E27 to E14**
BC-ACE12		**Converting E27 to E12**

17. Trouble Shooting

1. **When playback video, there is video only without sound**

   Solution : The problem is you did not tick the "recording sound" flag in sd-card configuration.

2. **I have entered my router SSID and router's wifi password and my devices has been connected to existing network, but I can not find the bulb camera on network after two minutes.**

   Solution : Press "Reboot" button on remote control or using reset pin, set the machine back to default mode "AP mode", and retry again. Beware of small or large capital letters when entering the SSID and password, must exactly match. Also, read the router setting section.

3. Can not receive email alert.

Solution : First you have to check your email service provider, make sure your entering information is correct, especially SMTP server and allowed to send email directly via that.

4. Where is your technical supporting page ?

Solution : If there are any updates on bulb wifi dvr cameras, we will update under this link, http://www.bulbcam.net

18. Disclaimer

This camera is for legal surveillance purpose. Our company does not warrant or assume any legal liability or responsibility for illegal usage or installation.